

*Editorial*

# Interventional Neuroradiology Is Dead! Long Live Endovascular Therapy!

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Radiology, regardless of its technique and area, is a diagnostic specialty. Thus, patients treated by interventional radiologists are not hospitalized in radiology departments and are not under the physical, legal and financial responsibility of therapeutic radiologists.

If there is a debate on how interventional neuroradiology therapy is or should be organized, it is because these treatments go against radiology's primary goal, the diagnosis of disease, and this opposition is becoming increasingly apparent. Indeed, after twenty years of ambiguity about the radiologist's therapeutic status, we are coming to a time of change.

Why this prolonged uncertainty? Up until recently, the therapeutic activity of most centers was negligible compared to their diagnostic activity. In addition, potentially dangerous diagnostic procedures, such as cerebral angiography, were done by the same operators and in the same angiography suites as the therapeutic procedures. As long as their diagnostic activities were proportionally more important than their therapeutic ones, the operators could call themselves radiologists and did not need to reflect on the consequences of their therapeutic role.

The proportion has now shifted and the radiologist's role, diagnostician versus therapist, needs to be clarified. MRI and CT-scans have evolved, and the need for diagnostic cerebral

angiography has disappeared or will disappear shortly. At the same time, the development of endovascular implants has multiplied the number of endovascular interventions: cerebral arteriovenous malformations are treated with embolization, as are almost all intracranial aneurysms, while atherosclerotic stenosis is treated by angioplasty, etc. These procedures are carried out in angiography suites, the sole purpose of which is now therapeutic!

These procedures imply the following sequence: the operator participates in the diagnostic evaluation, proposes treatment, informs the patient and his/her advocates, obtains consent on the risks and potential complications of the procedure, performs the procedure, follows up after the procedure and prescribes appropriate post-procedure medical treatment, orders the patient's release, writes the hospital summary, sees him/her at follow up visits, is liable and carries insurance. For all purposes and intents, the radiologist treats the patient. This new therapeutic specialty no longer has anything in common with radiology, apart from using X-rays. But X-rays here are only an optical device, used to check the accuracy of the therapeutic aim. By analogy, it may be interesting to note that the radiological checks frequently made during surgery do not transform surgeons into radiology technicians. In the case of interven-

tional neuroradiology, though, this means that patients are treated by radiologists, not therapists, in an area (the radiology suite) dedicated to diagnosis, not to treatment.

How confusing for the patients and their advocates! Were we to be patients, wouldn't we prefer being treated by bona fide therapists, i.e. therapists with hospital staff and beds? Conversely, why wouldn't neurologists or neurosurgeons, who already have the hospital staff, beds, and budget, become interventionists, with the risk that our specialty may be dragged down by insufficiently trained operators?

And what about our colleagues in training? Are we recruiting therapists among doctors who have chosen, rightly so, to specialize in an area where they are not involved with the patient's actual care, or shouldn't we attempt to choose our colleagues among those who are willing to perform often physically demanding interventions where the actual risk is directly assessable and has severe consequences? For

those of us with teaching responsibilities in diagnostic radiology, the main feeling is that we are not holding our end of the bargain: we, therapeutic neuroradiologists, don't know "how to make the protons dance" and cannot teach diagnostic neuroradiology to the radiology fellows who man our departments.

As to our budgets, we have seen how little interventional neuroradiology is taken into account in the billing of radiology-related events: there is no strength in this union.

Thus, no matter the level, local or national, it may be more realistic to map related health care costs to endovascular therapy departments, rather than keep wondering about the therapeutic activities of a department that performs CT-scans and MRIs. It is time to recognize that like surgery, endovascular therapy is a specialty in itself, deserving angiography suites in lieu of operating rooms and its own hospital beds, hospital personnel and hospital budgets. Our specialty is much closer to surgery than to radiology, and must obtain its independence.